up of acetylene burners.—On the tribromo and triiodo dinaphthoxanthonium and on the hydrobromic, dibromo, and hydriodic diiodo ethers of the supposed binaphthylene glycol, by M. R. Fosse. -On the action of the mono-halogen propionic esters upon the sodium derivative of acetyl-acetone, by M. Fr. March.—Contributions to the study of the chemical modifica-tions in plants submitted to the influence of sodium chloride, by MM. E. Charabot and A. Hébert. The addition of common salt to the soil has the following effects: it increases the percentage of organic matter in the plant, and also increases the relative loss of water. At the same time that this double influence is exerted on the plant, the sodium chloride favours esterification and reduces the transformation of menthol into menthane. - The biological theory of vision, by M. Georges Bohn. A criticism of the theory of vision put forward by M. Pizon. Of the three Of the three essential ideas of this theory, M. Bohn regards the first as not new and the two latter as not true.—The elementary forms of phosphorus in the invertebrates, by M. Jean Gautrelet. In the blood, carapace and shells of crustacea and molluscs, phosphorus exists in two elementary forms, mineral and organic.—The utilisation of sugars by the organism, by MM. Charrin and Brocard. —On the assimilation of sugar and of alcohol by Eurotyopsis Gayoni, by M. P. Mazé. The analytical results quoted would tend to show that the mycelium of this fungus is capable of utilising both alcohol and ammonia without loss of material .-The indications of the prophylaxy and treatment of pulmonary tuberculosis, by MM. Albert Robin and Maurice Binet.-On the origin of certain diseases of chrysanthemums, by M. Chifflot. Two diseases of the chrysanthemum described by M. Joffrin as new have been well known for some time both to botanists and horticulturists. - The siliceous tufa of Côte-aux-Buis, at Grignon, by M. Stanislas Meunier.—On the appearance of lesions in a foal analogous to those produced in its mother by an accident, by M. Le Hello.

DIARY OF SOCIETIES.

THURSDAY, JANUARY 30.

AROYAL SOCIETY, at 4.30.—The Chemical Origins of the Lines in Nova Persei: Sir Norman Lockyer, K.C.B., F.R.S.—The Specific Volumes of Oxygen and Nitrogen Vapour at the Boiling Point of Oxygen: Prof. J. Dewar, F.R.S.—The Distribution of Magnetism as affected by Induced Currents in an Iron Cylinder when rotated in a Magnetic Field: Prof. E. Wilson. Royal Institution, at 3.—Recent Excavations at Delphi and in the Greek Islands: Dr. A. S. Murray.

FRIDAY, JANUARY 31.

ROYAL INSTITUTION, at 9.—The Ions of Electrolysis: Prof. A. Crum Brown, F.R.S.
INSTITUTION OF CIVIL ENGINEERS, at 8.—The Quay-Walls of Keysham Harbour: J. C. Collett and W. H. C. Clay.
INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Discussion of the Paper by Mr. H. F. L. Orcutt, on Modern Workshop Methods.

MONDAY, FEBRUARY 3.

SOCIETY OF ARTS, at 8.—The Purification and Sterilisation of Water: Dr.

SOCIETY OF ARTS, at 8.—The Purincation and Sterilisation of Water: Dr. Samuel Rideal.

IMPERIAL INSTITUTE, at 8.30.—The Native Races of Nigeria: Dr. C. F. Harford-Battersby.

SOCIETY OF CHEMICAL INDUSTRY, at 8.—The Explosion of Potassium Chlorate by Heat: Dr. A. Dupré, F.R S.—The New Table Photometer and Standard Pentane Burner prescribed by the Gas Referees for use in the London Gas-testing Stations: Dr. F. Clowes.

TUESDAY, FEBRUARY 4.

ROYAL INSTITUTION, at 3.—The Cell: its Means of Offence and Defence: Dr. A. Macfadyen.

SOCIETY OF ARTS, at 4.30.—The History of the Rosary in all Countries: Rev. Herbert Thurstan, S. J.

ZOOLOGICAL SOCIETY, at 8.30.—Ecdysis, as Morphological Evidence of the Original Tetradactyle Feathering of the Bird's Fore-limb: Edward Degen.

—A Revision of the Amblypodia-Group of the Lycænidæ: G. T. Bethune-Baker.—Notes on the Osteology of Cogia breviceps: Prof. W. Blaxland

Benham.

Institution of Civil Engineers, at 8.—Papers to be further discussed:

The Sewerage Systems of Sydney, N.S.W., and its Suburbs: J. Davis.—
The Bacterial Treatment of Trades Waste: W. Naylor.

MINSRALOGICAL SOCIETY, at 8.—On the Hornsilvers: G. T. Prior and
L. J. Spencer.—The Identity of Kilbrickenite with Geocronite: Analyses of Miersite. Marshite and Copper-Pyrites: G. T. Prior.—A New Sapphirine-like Mineral from Ceylon: G. T. Prior and A. K. Coomara-Swamy.—Attempts to reproduce Interference-Effects by Three-Colour-Printing: Prof. Miers.

WEDNESDAY, FEBRUARY 5.

SOCIETY OF ARTS, at 8.—Jamaica: Herbert T. Thomas.

GEOLOGICAL SOCIETY, at 8.— On the Matrix of the Suffolk Chalky
Boulder-Clay: Rev. Edwin Hill.—On the Relation of certain Breccias to

NO. 1683, VOL. 65

the Physical Geography of their Age: Prof. T. G. Bonney, F.R.S.— On some Gaps in the Lias: E. A. Walford. ENTOMOLOGICAL SOCIETY, at 8. SOCIETY OF PUBLIC ANALYSTS, at 8.

THURSDAY, FEBRUARY 6.

ROYAL SOCIETY, at 4.30.

ROYAL SOCIETY, at 4.30.—The Coal Resources of India: Prof. SOCIETY OF ARTS, at 4.30.—The Coal Resources of India: Prof. W. R. Dunstan, F.R.S.

LINNEAN SOCIETY, at 8.—On a Method of Investigating the Gravitational Sensitiveness of the Root-tip: F. Darwin, F.R.S.—An Extinct Family of Ferns: Dr. D. H. Scott, F.R.S.

CHEMICAL SOCIETY, at 8.—An Investigation into the Composition of Brittle Platinum: W. N. Hartley.—Conversion of I-Hydroxycamphene into B-Halogen Derivatives of Camphor: M. O. Forster.—Tetrazoline, Part II.: S. Ruhemann and H. E. Stapleton.—(1) The Solubilities of the Calcium Salts of the Acids of the Acids of Series; (2) The Equilibrium between a Solid and its Saturated Solution at various Temperatures: J. S. Lumsden.—The Influence of Temperature on Association in Benzene Solution, and the Value of the Molecular Rise of Boiling Point for Benzene at Different Temperatures: W. R. Innes.—The Magnetic Rotation of Ring Compounds; Camphor, Limonene, Carvene, Pinene, and some of their Derivatives: W. H. Perkin, sen., F.R.S.—Polymerisation Products from Diazoacetic Ester: O. Silberrad.

Röntgen Society, at 8.30.—A System of Radiography: E. W. H.

RÖNTGEN SOCIETY, at 8.30.—A System of Radiography: E. W. H.

FRIDAY, FEBRUARY 7.

ROYAL INSTITUTION, at 9.—The New Mammal from Central Africa and other Giraffe-like Animals: Prof. E. Ray Lankester, F.R.S.
GEOLOGISTS' ASSOCIATION, at 7.30.—Annual General Meeting.—Address on a Dozen Years of London Geology (Eocene, Chalk, and Underground): W. Whitaker, F.R.S., President.

CONTENTS. PAG	GE
The Advancement of Natural Knowledge 2	289
The Eiffel Tower	
Voigt's Elementary Mechanics. By A. E. H. L 2	93
	94
Our Book Shelf :	77
	94
Newstead: "Monograph of the Coccidæ of the	7
	95
Larbalétrier: "Le Sel, les Salines et les Marais	,,
I	295
Parsons: "Elementary Ophthalmic Optics, including	,,
Ophthalmoscopy and Retinoscopy"	295
	296
	296
	96
Letters to the Editor :-	
Cherry Disease Sir W. T. Thiselton-Dyer,	
K.C.M.G., F.R.S	96
Variation in Fowls.—F. Finn	97
Elementary School Mathematics.—J. W. Marshall 2	97
The Distance of Nova PerseiW. E. Wilson,	
	98
A Luminous Centipede J. E. Barnard 2	99
Birds Capturing Butterflies in Flight.—Lilian J.	
	99
Extremes of Climate in the British Empire.—Chas.	
	99
A Gallery of Animal Engravings of the Stone Age.	
	99
	00
	10
Our Astronomical Column :	
	05
	05
	05
Simultaneous Visibility of Sun and Total Lunar	
	05
The Validity of the Ionisation Theory. By W. R. C. 3	
	08
University and Educational Intelligence 3	08
Societies and Academies	09
Diary of Societies	12